



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/646,923	08/25/2003	Hong-gie Hwang	1293.1884	1952

21171 7590 01/05/2007
STAAS & HALSEY LLP
SUITE 700
1201 NEW YORK AVENUE, N.W.
WASHINGTON, DC 20005

EXAMINER

FLORES RUIZ, DELMA R

ART UNIT	PAPER NUMBER
----------	--------------

2828

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/05/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/646,923	HWANG, HONG-GIE	
	Examiner	Art Unit	
	Delma R. Flores Ruiz	2828	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 September 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 18-34 is/are allowed.
- 6) ☒ Claim(s) 1,3-4,7-10 is/are rejected.
- 7) ☒ Claim(s) 5, 6, 11 - 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

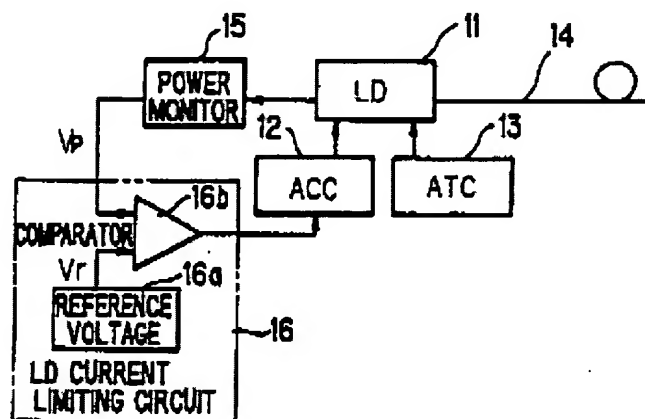
A person shall be entitled to a patent unless –

Claims 1, 3, 7, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Noda et al (6,229,833).

Regarding claim 1, Noda shown Figure 1, discloses a method of automatically controlling an output power of a laser diode (see Fig. 1, Character 11), the method comprising: generating an error voltage between an output voltage of the laser diode sampled during an automatic power control period (see Fig. 1, Character 15) and a reference voltage (see Fig. 1, Character 16a); and performing proportional-integral processing (see Fig. 1, Character 12 and Column 11 Lines 17 – 36) on the error voltage to generate a compensated control voltage (it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does

not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987)) and applying the compensated control voltage to the laser diode (see Fig. 1, Character 11).

FIG. 1



Regarding claim 3, Noda shown Figure 1, discloses a compensated control voltage applied to the laser diode is an effective control voltage within a predetermined range (see Fig. 1, Character 15).

Regarding claim 7, Noda shown Figure 1, discloses a computer readable medium having embodied thereon a computer program for automatically controlling an output power of a laser diode comprising: generating an error voltage between an output voltage of the laser diode (see Fig. 1, Character 11) sampled during an automatic power control period (see Fig. 1, Character 15) and a reference voltage (see Fig. 1, Character 16a); and performing proportional-integral processing (see Fig. 1,

Character 12 and Column 11 Lines 17 – 36) on the error voltage to generate a compensated control voltage (it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987)) and applying the compensated control voltage to the laser diode (see Fig. 1, Character 11).

Regarding claim 9, Noda shown Figure 1, discloses an apparatus to automatically control an output power of a laser diode, the apparatus comprising: an error voltage generation unit generating an error voltage between an output voltage of the laser diode (see Fig. 1, Character 11) sampled during an automatic power control period (see Fig. 1, Character 15) and a reference voltage (see Fig. 1, Character 16a); and a control voltage generation unit performing proportional-integral processing (see Fig. 1, Character 12 and Column 11, Lines 17 – 36) on the error voltage provided from the error voltage generation unit to generate an effective control voltage (it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4, 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Noda et al (6,229,833) in view of Woodley (2003/0179787 A1).

Regarding claims 4, 8 and 10 Noda shown Figure 1, discloses a method of automatically controlling an output power of a laser diode (see Fig. 1, Character 11), the method comprising: generating an error voltage between an output voltage of the laser diode sampled during an automatic power control period (see Fig. 1, Character 15) and a reference voltage (see Fig. 1, Character 16a); and performing proportional-integral processing (see Fig. 1, Character 12 and Column 11 Lines 17 – 36) on the error voltage to generate a compensated control voltage (it has been held that a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus satisfying the claimed structural limitations. Ex Parte Masham, 2 USPQ F.2d 1647 (1987)) and applying the compensated control voltage to the laser diode (see Fig. 1, Character 11).

Regarding claim 4, Noda discloses the claimed invention except for analog to digital converter and digital to analog converter. Woodley teaches providing his device with an analog to digital converter and digital to analog converter. However, it is well known in the art to apply the analog to digital converter and digital to analog converter as disclosed by Woodley in (see Fig. 3). Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was to apply the well known analog to digital converter and digital to analog converter as suggested by Woodley to the laser of Noda, because could be use the ADC to converter the laser beam to digital signal to the processor can process the information and could be use the DAC to convert the digital signal to the analog signal to can make a feedback in this device to see (see Fig. 3) of Woodley.

Allowable Subject Matter

Claims 5, 6, 11 – 17 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 18 – 34 are allowed.

Response to Arguments

Applicant's arguments with respect to claims 1 and 3 – 34 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Delma R. Flores Ruiz whose telephone number is (571) 272-1940. The examiner can normally be reached on M - F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Min Sun Harvey can be reached on (571) -272-1835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

Art Unit: 2828

USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Delma R. Flores Ruiz
Examiner
Art Unit 2828
DRFR/MH
November 20, 2006


ARMANDO RODRIGUEZ
PRIMARY EXAMINER

Min Sun Harvey
Supervisor Patent Examiner
Art Unit 2828